

**WHAT IS CLAIMED IS:**

1. A method to modulate splicing and/or alternative splicing *in vitro* comprising an administration to a cell or extract thereof of an effective amount of a polar aprotic solvent, whereby said effective amount modulates splicing and/or alternative splicing as compared to an untreated cell or extract.
2. The method of claim 1, wherein said solvent is selected from DMSO, DMF and formamide.
3. The method of claim 2, wherein said solvent is DMSO or DMF and said modulation is effected on a nuclear extract.
4. The method of claim 4, wherein said effective amount modulates alternative splicing.
5. The method of claim 1, wherein said modulation is effected through an effect on at least one SR protein.
6. A method of modulating the splicing and/or alternative splicing activity of a SR protein comprising an administration to a cell or extract thereof containing said SR protein of an effective amount of a polar aprotic solvent, whereby said effective amount modulates said activity of said SR protein as compared to a non-treated cell or extract.
7. The method of claim 6, wherein said solvent is selected from DMSO, DMF and formamide.

8. The method of claim 7, wherein said solvent is DMSO or DMF and said modulation is effected on a nuclear extract.

9. The method of claim 8, wherein said effective amount modulates said alternative splicing activity of said SR protein.

10. A splicing kit comprising:

- a) a container containing a splicing and/or alternative splicing-competent extract;
- b) a second container containing a splicing and/or alternative splicing buffer; and
- c) a polar aprotic solvent.

11. The kit of claim 10, wherein said polar aprotic solvent is selected from DMSO, DMF, formamide, HMPA, N-methylformamide, nitromethane, acetone, and acetonitrile.

12. The kit of claim 11, wherein said solvent is DMSO.

13. The kit of claim 11, wherein said solvent is present in said first container.

14. The kit of claim 12, wherein said extract is a nuclear extract whose splicing activity is normalized by said DMSO.

15. The kit of claim 11, wherein said solvent is contained in a third container.

16. A method to normalize a splicing and/or alternative splicing activity of an extract comprising an addition thereto of an effective amount of a polar aprotic solvent, whereby said effective amount normalizes splicing and/or alternative splicing as compared to an untreated extract.

17. The method of claim 16, wherein said solvent is selected from DMSO, DMF, formamide, HMPA, N-methylformamide, nitromethane, acetone, and acetonitrile.

10

18. The method of claim 17, wherein said solvent is DMSO or DMF and said normalization is effected on a nuclear extract.

19. The method of claim 18, wherein said effective amount modulates alternative splicing.

15

20. The method of claim 16, wherein said normalization is effected through an effect on at least one SR protein contained in said extract.

20